THE

MASSACHUSETTS TEACHER.

APRIL, 1870.

Vol. XXIII. JOHN KNEELAND, Editor. No. 4.

ETYMOLOGY.

[*A paper read by* WILLIAM C. COLLAR *at the meeting of the High School Association in February.*]

IT seems to me that no branch of elementary classical instruction has been so much neglected as that which forms the subject of this hour's discussion. In our latest and most popular school grammars, only some ten or twelve pages out of more than three hundred, or about one-thirtieth of the whole, are devoted to derivation; while in the Latin dictionaries in general use, the subject, though not ignored, is certainly most inadequately treated, and apparently deemed of very inferior importance. The etymology given of many words is absolutely erroneous. That of others is untraced, though often of exceeding historical or ethical interest, and though the investigations of recent scholars may have left no reasonable ground for doubt. The student would hardly suspect that the Latin is one of a great family of languages of which he may actually be studying three or four; but he would, unless put on his guard, be almost certain to infer that its words are, to a considerable extent, corrupted forms of Greek vocables.

This language may seem exaggerated; but it would not be difficult to establish its correctness, if time permitted. Even as I write these sentences, I lay down my pen, and open my lexicon almost at random. I glance at such words as *domus, ovum, lego, neo, ager, aratrum, alius, vinum, vulgus*, and find they all come from the Greek; as though one people ever borrowed from another outright the names of the commonest acts and objects, to say nothing of the

evidence in the form of some of the words mentioned that they can not be of later origin than those from which they are supposed to be derived. I look again and see, to my astonishment, that *ceterus* is a hybrid, — a Latin prefix, and a Greek stem. *Insula, trucido, vestibulum*, etc., are underived. *Lustrum* is made from *luceo*, and not from *luo; vestigo* is referred to *vestigium* instead of the reverse; *minister* comes from *manus*, though both the sense and the correlative *magister* from *magis* show its relation to *minus;* and *Quirites* is traced to *Cures*, an etymology which Mommsen has shown to be without historical foundation.

The important part that onomatopœia has played in orignating words is scarcely recognized. I am aware that this is a disputed question, that one of the ablest and most learned of living philologists treats it with ridicule and contempt; but whoever reads attentively Mr. Farrar's "Chapters on Language," will see abundant evidence that its claims are too obvious and too powerful to be met with derision. "Through all the stages of growth of language," says Mr. Whitney, "absolutely new words are produced by the imitative principle more than by any other." And again: "There was doubtless a period in the progress of speech, when its whole structure was palpably onomatopœtic."

What then the value may be of works professedly etymological repositories and guides, which, to say nothing of numerous and palpable blunders, derive Latin from Greek, gravely and respectfully quote and accept the etymological whims and vagaries of the ancients, ignore the close relationship of kindred languages, and all but disregard the most effective force in word formation, I leave to be inferred. It would appear then that the neglect of this department of classical study may be due in some measure to the want of suitable helps. The most valuable works on etymology are in foreign languages, expensive, and not easily obtained, and they presume besides much preparatory study, and a knowledge of the principles of the science, which are precisely what one may most need to know. But this explanation only partially meets the case, and, in fact, leaves the phenomenon still largely unexplained. We cannot excuse ourselves for doing nothing, because our tools are not of the most approved pattern and the finest finish. But we, who are

engaged in preparing students for college, may find some apology in the apparent indifference of those who direct the higher education.

No acquaintance with derivation is required for admission to our colleges, and as most teachers find quite enough to do to prepare pupils adequately in what is prescribed, it is no wonder that this subject receives but a small share of attention. Nor are we peculiar in this respect. I judge that little value is attached to etymology in the English classical schools, and no questions requiring a knowledge of its principles are put to candidates on their entrance examination at the universities of Oxford and Cambridge. I cannot think that the subject is wholly passed by in the German *gymnasien;* but in a report of the Frederick William Gymnasium for the past year, in which the school work is set down in detail, even to the designation of the parts of the Latin and Greek grammar which were studied each term by the several classes, no mention is made of this.

In seeking a further explanation I have sometimes thought it might be found in the fact that etymology as a science is in its infancy, and that its great interest and importance have accordingly not been fully understood and appreciated. It is true that the Greeks early speculated on the origin of many of their words, and not a few ingenious or amusing guesses at the genealogy of vocables meet us in the pages of Greek and Latin authors. The middle ages witnessed some extraordinary and grotesque efforts in the same line, but it was not till after the discovery of Sanscrit, in the latter part of the last century, that a science of etymology could be said to have so much as a beginning; and not till the completion of Bopp's Comparative Grammar in 1849, that the reign of theory without facts was brought to an end. Since then many reapers have entered the field, and many golden sheaves have been gathered; but the chaff has not been all winnowed away, and it may be that our higher institutions of learning do wise to wait.

No branch of human knowledge has a right to a place in schemes of general culture, until its principles have been investigated and established; until, in a word, it is entitled to be called a science;

but on the other hand, when it is entitled to that name, it should not be utterly ignored. The ease with which a subject may be turned into ridicule is no proof of its worthlessness; but it is often a serious hindrance to a recognition of its value. This, I think, has been eminently true of etymology. It has afforded a tempting field for the display of wit, and the blunders of those who have been ambitious to show their critical acumen have sometimes afforded more amusement than the most elaborate efforts of professed satirists. Voltaire, you remember, defined etymology as "a science in which no stress at all is placed upon the vowels, and very little upon the consonants." Dean Swift aimed the shafts of his unrivalled wit against it in a number of whimsical derivations, tracing the Greek name Achilles to *a-kill-ease*, and Alexander the Great to "*all eggs under the grate.*" Some wag finds in the blending of the words τῶ and βάκχῶ from βάκχος, the god of wine, the origin of our word *tobacco*. But many etymologies gravely proposed by Sprenger, an active agent of the Inquisition, but a learned man, are hardly less absurd. He derived *femina* from *fe* and *minus*, because *women have less faith than men;* and *diabolus*, though he offers us our choice of several instructive derivations, he himself inclines to make a compound of *dia* two, and *bolus* = *morsellus*, a part; "because," says he, "the devil destroys both parts — body and soul." I confess this seems to me less probable than the explanation of the word quoted in Southey's Common-place book, from which it is made evident that *evil* comes from *apple*, through the Hebrew, and that *devil* is a contraction of *doer of evil*. I will illustrate this topic by quoting only one more example which may indicate a not very advanced state of philological knowledge amongst our undergraduates. A student of a New England college was asked not long ago to give the etymology of the word *ventriloquism*, and though the answer was not immediately ready, after a moment's reflection he shrewdly suggested that it was probably from "*ventro*, I speak, and *quism*, the belly."

The form of our question plainly assumes the importance of etymological study, and it is not my intention to try to prove what perhaps every one present takes for granted; but I may be par-

doned for recalling one or two reasons why it is important. In the words of another, " etymology is the foundation and substructure of all investigation of language. Words are the single witnesses from whom etymology draws out the testimony which they have to give respecting themselves, the tongue to which they belong, and all human speech." But the study of words is more than the study of human speech; it is the study of the mind, since every word is a product of human intelligence. The exceeding interest which belongs to such a pursuit has been admirably illustrated by Dean Trench, Max Müller and others; and it is because of its intrinsic interest especially that it should not be neglected in classical study. No complaint against Latin and Greek is so often repeated as this of their lack of interest. Now is not this fairly chargeable in some measure to the failure of teachers to bring out patiently and diligently its more attractive features? Have we not too much handled the mere dry bones of language, or at least been content to leave them such? Have we sought to clothe them with flesh and sinews, and breathe into them the breath of life? It is a striking saying of Richter's that language is a dictionary of faded metaphors. What can be a more delightful employment for the mind than to endeavor to bring out the original figures and restore the faded colors of the picture that often lies hidden in a word, by tracing that word to its primitive form and meaning?

What a charm is often added to a word that seemed a dull, lifeless, arbitrary sign of thought, when it is found that it expresses some abstraction of the mind under the figure of a physical object or relation. A boy may collect from examples, or from the explanations of his teacher, the general notion of the word *climax;* but when he reads in the Anabasis how the Ten Thousand in their retreat came to a people that lived under ground, and that the ascent to the surface was made by a κλιμαξ, he sees that a climax is a *rhetorical ladder*, and he is conscious of having gained something more than a clearer apprehension of the meaning of an obscure word.

It is evident that the study of etymology may and should be made an efficient aid to the memory in the study of the ancient languages. The supreme difficulty that confronts the learner is not the syntax, or the difference of their idioms from his own; nor is it in the mas-

tery of its inflections; but chiefly first and last the strangeness of its words. He meets with an entirely new set of signs for objects and ideas, all to him utterly arbitrary; and several repetitions of any given word are needed to fix in the mind a degree of association between the sign and the thing signified, so that either will recall the other. So long as the words are viewed as separate and independent, so long as their mutual relationships are undiscovered, so long must a distinct effort of the mind be made to connect each symbol with that which it shadows forth. It is therefore manifest that in proportion as words can be grouped together, the common root discovered, and the first intention seized by the mind, in the same proportion will memory be assisted, and time and labor saved.

But there is another object that should be kept steadily in view, to which the study of etymology should be made to contribute. It should be pursued in such a way as to impart the power and cultivate the habit of detecting analogies between things seemingly dissimilar and remote. The teacher should muster from different languages kindred words for review and inspection; he should unfold the laws according to which the root has been modified, and trace the common or related ideas through the whole series. Will you permit me to give a partial illustration of my meaning?

Suppose we take for examination a few Greek words in which the root ακ appears; as, ἀκ-ίς, ἀκ-ή, ἀκ-μή, ἄκ-ων, ἀκ-όν-η, ἄκ-ρος, ὠκ-ύς, ὀξ-ύς. In the first six lies the idea of *pointedness* or *sharpness;* in the seventh that of *swiftness;* and in the last, both these notions, together with that of *sourness.* Look now at the Latin words springing directly from the same stem. We have *ac-ies, ac-us, ac-uo, ac-ior, ac-eo,* and *ac-er.* Here again the original sense of the first three coincides with that of the first six in Greek. Next *ac-ior* corresponds to ὠκ-ύς, and *ac-eo* to ὀξ-ύς in the sense *to be sour.* Finally, in *ac-er* again all three ideas of *sharp, swift,* and *sour* unite. Against *ac-er* we can put the French *aig-re;* and beside the latter our *eager,* which again expresses the three notions of *ac-er* and ὀξ-ύς; for though now commonly used to denote an *ardor* or *swiftness* of feeling, it was once employed in the physical senses of *sharp* and *sour;* as in Shakespeare, "It is a nipping and an eager air"; and

"eager droppings into milk." Finally, with *ac-ies* and the rest we may range *edge*, and the German *Ecke*, a corner, where I leave it.

In this way we can show how kindred ideas are expressed by related words, in the same language and in different languages. But if we would make etymology teach its profoundest lesson, and render its crowning service as a factor of education, we must take one step more. We must show our pupils how the study of words, their origin, their use, and their changes of meaning, often disclose the subtle chains that unite the world of matter and the world of spirit. The idea that, "everything visible has belonging to it an appropriate spiritual reality," has always been a favorite one of mysticism. And many of its devotees have striven, by years of revery and attempted isolation of the spirit from all outward objects and impressions, to purge the mental vision to a clearer view of this secret correspondence. Swedenborg believed himself divinely commissioned to reveal the mysteries of this relation of the outer to the inner world. He looked upon the universe "as a temple covered with hieroglyphics," the writing of God's own hand. This may seem to our cold reason merely an idle fancy. But it is only the formal statement of the truth that makes us sceptical.

The poet believes it, and from thence derives all that delights us most in his song. It is the foundation of metaphor, and many of the words that are every day upon our lips, when questioned, will testify to its reality.

Flowers are, the world over, the emblems of the tender sentiments. How curiously we associate colors with virtues and vices! *White* is the universal symbol of purity, as black is of moral guilt and baseness. *Red* typifies *love;* and *jealousy*, we know from Shakspeare, is "green-eyed." It does not surprise us that the merciless inquisitors of Spain sent their victims to the stake dressed in robes of *yellow*. And as little do we wonder that Correggio painted the drapery of the penitent Magdalene of *blue*, to denote the *constancy* of her love for the Saviour.

"Every word," says Emerson, "which is used to express a moral or intellectual fact, if traced to its root, is found to be borrowed from some material appearance. *Right* means *straight; wrong* means

twisted; spirit primarily means *wind; transgression*, the crossing of a line; *supercilious*, the raising of the eyebrow. We say the *heart* to express emotion, the *head* to denote thought; and *thought* and *emotion* are words borrowed from sensible things, and now appropriated to spiritual nature."

Who does not see that it is possible from such hints to open a new world of thought to young minds? But you will say I have only pointed out the way by which the upper heights are to be ascended, meanwhile there is much hard climbing to be done below. I have done so because the first steps seem to me more evident. I do not think we can begin too soon with our pupils in helping them to observe, in the inflections of their grammar, and in their first reading lessons, the simplest cases of derivation. I should not be in haste to have rules committed to memory. It is, in my opinion, far better for the learner to arrive at the rule by noticing and comparing examples, than to reverse the process; and for the great majority, the exercise thus conducted has far greater interest. Doubtless the progress will seem much slower at first, but it will be more than compensated by the increased rapidity of subsequent acquisition, and especially by that habit of mind of which I have already spoken as the chief end, and which such a method seems best adapted to form. It is hardly necessary to suggest that the correspondence of English derivative endings with those of Latin and Greek should be constantly noticed. I should deem it of great importance to trace the etymology of words, so far as it is practicable, in the text that has passed before the pupil's eye. This can often be done very satisfactorily, especially in Homer; but the want of verbal indexes to the works usually read in preparatory schools, makes it somewhat difficult.

I cannot but think that it is in the power of teachers to add very greatly to the interest of classical study by following some such course as I have vaguely sketched. But here, as in all departments of education, more depends upon the spirit and ability of the teacher than upon the method. The teacher must lead the way. He must show the dignity and the value of this study, to make his pupils keenly observant and eager to gather knowledge. He must

show how sometimes the etymology of a word, that ignorance may have corrupted, or use abraded, has put into the hand of the student of antiquity a clew by which he has traced out facts that otherwise must have forever remained hidden in impenetrable darkness, even as the Indian tracks his foe through a gloomy and pathless forest by here and there a crushed leaf or a broken twig.

EXAMPLES FOR PRACTICE IN QUANTITATIVE CHEMICAL ANALYSIS.

[*By* FRANK H. STORER, *Professor in Massachusetts Institute of Technology.*]

SEVERAL teachers, who have attended the free courses of instruction in General Chemistry and Qualitative Analysis, established at the Institute of Technology, through the liberality of the trustee of the Lowell Institute, have expressed a desire to prosecute the study of Quantitative Analysis also, — at least far enough to obtain a general idea of the methods actually employed in that branch of chemical art.

The object of the following communication is to show how readily this desire may be gratified, even without access to a well-appointed laboratory.

In most manuals of Quantitative Analysis, and in most of the laboratories established for teaching students who are to pursue chemistry as a profession, the subject is treated of in such manner that a costly balance seems to be absolutely essential for the conduct of accurate operations. The would-be amateur is usually disheartened at the first glance by this requirement, and led to regard the study as something not only occult in itself, but impracticable for him, because expensive.

It must be remembered, however, that, though now indispensable to the professed chemist, the delicate "chemical balance" is, comparatively speaking, a thing of yesterday. The science has actually been built up, for the most part, through the use of far rougher implements, such as may now be obtained almost anywhere for a few dollars. There is in fact no real difficulty in making thoroughly satisfactory analyses of a great variety of substances,

by means of a cheap balance, if the operator will but work with tolerably large quantities of his materials.

The advantage in using a delicate balance consists chiefly in the time gained by operating upon small quantities. Other things being equal, a precipitate, which weighs only a few grains, may evidently be collected, filtered and washed more readily than one weighing the same number of drachms.

The following analyses made under my direction, in the Institute's laboratory, by my assistant Mr. A. H. Pearson, may serve as examples of what can readily be accomplished by a careful manipulator tolerably familiar with chemical principles. It may be remarked that several of these analyses are better than the average of analyses made with fine balances and small quantities.

The apparatus required for the following experiments consists of a couple of sheets of "Swedish," and five or six sheets of ordinary filter paper; two glass stirring rods; two glass funnels, each large enough to carry a six-inch filter; three or four glass beakers; a couple of glass flasks, one of them fitted with tubes as a wash-bottle; a crucible and an evaporating dish of Berlin porcelain; a Bunsen's gas-burner, or an alcohol lamp; and an iron ring stand, furnished with a rough sheet-iron saucer, — for use as a sand bath; a triangle of iron wire and a piece of wire-gauze four or five inches square. Instead of the ring stand, a tripod of stiff wire may be used. For experiment No. VI. a burette will be needed also.

The balance actually used in the experiments here recorded was an apothecary's "prescription scale," capable of carrying 60 grammes or more on each pan, and delicate enough to move distinctly with a weight of two milligrammes. It was made by Becker & Sons, of 18 Exchange place, New York, and bought of their Boston agents, J. T. Brown & Co., corner of Washington and Bedford streets, for $8.60 in gold. The weights employed were a set of ordinary German gramme weights, worth five or six dollars.

With the exception of parts of Experiments VII. and VIII., all the operations described may be performed without trouble in any ordinary room. The evaporation of the acid liquor in Exp.

VII. may be readily effected by placing the lamp, ring-stand and evaporating dish in a not too tight wooden box out of doors.

EXPERIMENT I. — *Determination of Iron by precipitation as sesquioxide.*

Weigh out about 3 grammes of fine, tough iron-wire. Put the wire in a beaker of about a litre capacity, and pour upon it 30 or 40 c. c. of pure strong chlorhydric acid. Place the beaker on a sand bath or piece of wire gauze above the lamp, cover it with a piece of window glass, and heat its contents gently, so that the iron may dissolve with tolerable rapidity, but without violent ebullition. When the iron has dissolved, add 10 or 12 c. c. of strong nitric acid to the solution and continue to heat the mixture. Through the oxidizing power of nitric acid, the ferrous chloride will be changed to ferric chloride. Meanwhile, the liquid will become temporarily dark colored by dissolving a quantity of the hyponitric acid, which results from the reduction of the nitric acid. But after a few moments the liquor becomes clear again, as the nitrous fumes escape, and then exhibits the characteristic reddish-brown color of ferric chloride. As soon as the temporary dark color has disappeared from the solution, lift the cover of the beaker and by means of a wash-bottle rinse back into the iron solution any particles of liquid which may have been thrown up during the action of the acid and left adhering to the plate. Dilute the iron solution with pure water enough to nearly fill the beaker, stir the mixture with a glass rod, and transfer half of it to another beaker of the same size as the first. Heat the contents of each beaker almost to boiling, stir the liquor and add to it, little by little, ammonia water, until the odor of the ammonia persists. A couple of filters of "Swedish paper," each of six inches diameter, will be sufficient to collect the whole of the hydrated sesquioxide of iron thus thrown down. To facilitate the process of filtering and washing, proceed as follows: Let the contents of each beaker stand at rest for a few moments in order that the hydrate of iron may settle; then pour into the filter the tolerably clear liquid which floats above the precipitate, and pour a quantity of boiling water upon the precipitate in the beaker. As soon as the mixture of precipitate and water has settled again somewhat, pour

the tolerably clear supernatant water into the filter and again pour hot water upon the precipitate in the beaker. Repeat this process of *washing by decantation*, some eight or ten times; then wash out the whole of the precipitate from the beaker into the filter, by means of the wash-bottle, and continue to pour hot water upon the contents of the filter, until the last traces of chloride of ammonium have been removed. When the last drops of wash-water have drained away, cover the funnels with paper to protect the precipitates from dust, and set them aside in a moderately warm place.

Transfer the dried precipitate from the filters to a porcelain crucible of known weight, burn the filters upon the cover of the crucible until the last portions of carbon are destroyed, add the ashes to the precipitate in the crucible, cover the latter, and heat it strongly for eight or ten minutes over a Bunsen lamp. In burning the filters, it is well, towards the close, to press down the unburned carbon against the hot porcelain by means of a stiff wire.

After the crucible has been allowed to become cold, weigh it with its contents. This weight, minus the original weight of the crucible and that of the filter ash (for which an allowance of 0.3 per cent of the weight of the paper may be made), will give the weight of the sesquioxide of iron, whence the weight of iron may be calculated by the following proportion:—

Wt. of a molecule of $Fe_2 O_3$	:	wt. of the 2 atoms of Fe therein contained	:	:	wt of $Fe_2 O_3$ found.	: X

Starting with 3 grammes of metallic iron, Mr. Pearson obtained 4,282 grms. of $Fe_2 O_3$ (= 2,9974 grms. Fe), or in terms of per cents, 3 : 2,9974 = 100 : 99,91 per cent.

[*To be continued.*]

THE ABOLITION OF THE DISTRICT SYSTEM.

THE recent law of the State abolishing the school district excites considerable comment in this section of the Commonwealth, and in some localities a bitterness against the measure accompanies

it which no amount of argument will allay. It is no marvel that in some of our towns where local natural hindrances, such as lakes, hills, etc., prevent desirable concentration, a feeling of opposition should be prevalent; but it is astonishing to see so much of it in sections where consolidations of small districts into graded schools appears to any unbiassed mind the very thing needful for an improved state of education in the community. Inveteracy of custom operates as a powerful barrier against progress in this behalf, nor is its entire subsidence to be expected during the present generation. The new law would meet a better reception in many of our towns were it not that the active opposition of the remote dwellers is aided indirectly, but essentially, by the eminent conservatism of many influential citizens, who, having no young children to be educated, do not interest themselves in a matter which they conceive belongs wholly to others who have, and consequently remain passive rather than active verbs in this jangling lesson of human analysis. I say *passive*, and yet, when a small majority in favor of the law seek to render it effective by liberal appropriations for new buildings and modern educational appliances, their votes are oftener recorded with the malcontents than with the friends of progress. A dollar or two more of prospective draft on some plethoric purses is often potent enough to array their owners against any measure of public good in which they are not directly and personally concerned.

But it should be remarked that this aversion of many of our moneyed men to co-operate in the good work of reform sometimes finds, perhaps justly, its apology in the injudicious outlay of some of our larger manufacturing towns for school buildings which rival in architectural finish and equipments the wealthiest cities of the commonwealth. In some cases of this description, the employés of large manufacturing establishments, who are entirely willing to vote for expenditures which others must sustain, combine with the zealous advocates of a better public education to secure more expensive accommodations for it than are really necessary or warrantable. I am a sincere advocate of everything needful for the thorough development of mind, including a sufficiency for purposes purely æsthetic.

But it is quite possible that the matter may be overdone, and costly architecture be carried by a spirit of emulation so far as to entail needless burdens on a community. When a $25,000 school-house, with cherry or maple furniture, will answer every useful purpose, it is folly to double the expense for a more ostentatious edifice, with equipments of mahogany or black walnut; and this, too, less for the sake of aiding the schools, than from ambition to rival a sister town which has made a similar outlay. It is the same fault which is seen in some religious societies, whose love of display or unwillingness to be outdone by neighboring parishes prompts them to erect larger and costlier churches than they need or can afford, and thus saddle themselvs with a debt which, Sinbad-like, they carry long and with vexation.

For the sake of union of all hearts in promoting a great good, these things ought not so to be. Better act on the maxim, — thousands for the necessary, not a dollar for the extravagant. Surely it is greatly desirable that, in a matter so important to the prosperity of our people, such measures be adopted as shall awaken the laudable pride, and secure the hearty good-will, of the whole community.

So far as the town where I live is concerned, we abolished the district system four years ago, with the intention of establishing three graded schools, one in each of the business centres, and a High School to crown the whole and complete the arrangement. Our population does not legally oblige us to the last part of this programme; but so good an opportunity was afforded by the offer of the Trustees of Williams Academy here, of their building, premises, and fund in aid of the measure, that it was accepted, and a union of High School and Academy effected. But so large was the opposing minority to the abolition of the districts that the whole plan has not yet been fully carried out. The erection of one fine school-house, however, two years since, with modern improvements, has blunted already the edge of dissatisfaction in one section, the children in the remotest portions preferring to walk two miles to attend school in the new building rather than fill the rickety old barrack at their own doors. The opposition gun is

effectually spiked in that quarter. A second house, also for two schools, is to be constructed the present year in another manufacturing centre, to be followed, we trust, by a third in the main village. Then it is expected that our school system will be complete in its organization of three primary, three intermediate schools, and the Academic High School. The latter has been recently furnished with the best philosophic apparatus of any institution of its grade in the western section of the State, and the outfit is already returning its value with interest in the increased profiting of its pupils.

STOCKBRIDGE, MASS.

TO ARNOLD.

ONE of Arnold's pupils, Thomas Burbridge, who wrote, with Arthur Hugh Clough, a little volume of charming poems called "Ambarvalia," printed in 1849, and afterward suppressed, addressed a sonnet to his master, which is worthy of being reproduced: —

"Yes, noble Arnold, thou didst well to die!
Needed but this that the dark earth should hide
The seed, to have the harvest far and wide.
Long (with a voice that echoed in the sky)
Didst thou pour forth thy fervent prophecy:
Vain seer! for thou amongst us did abide;
This world was then thy country; at our side
Thou spak'st scarce heard. But now thou art on high
Among the Immortal and Invisible Quire,
And straight like thunder (silent till the fire
Which caused it dies), thy soul's majestic voice
Is rolling o'er the wonder-smitten land;
And Truth, that sat in drought, dares to rejoice,
Marking that all admire, some understand!"

Harper's Magazine.

THE SNOW-DROP.

The snow-drop is the herald of the flowers,
Sent with its small white flag of truce to plead
For its beleaguered brethren; suppliantly
It prays stern Winter to withdraw his troop
Of winds and blustering storms: *and having won*
A smile of promise from its pitying face,
Returns to tell the issue of its errand
To the expectant host.

Editor's Department.

EDITORIAL ARRANGEMENTS.

It was our intention at the beginning of the year, to make arrangements to secure for the *Teacher* such articles as would meet the wants of all classes of its numerous readers. We have not yet succeeded in doing what we intended. It is much more difficult to obtain good articles relating to elementary instruction, than articles relating to other departments of education. And, if the make-up of other educational journals is any criterion, this difficulty is not confined to our locality.

Our present arrangements will furnish the readers of the *Teacher* with able articles upon classical subjects, from month to month. The High School teachers manifest a commendable interest in whatever relates to their department, and are ready to contribute to the pages of the *Teacher* whatever may be desired. Grammar School teachers, to some extent, manifest the same interest, but the wants of their department are much more easily met in regard to the upper classes of their schools than the lower. Primary School teachers, we fear, have yet some cause to complain of neglect.

Again would we invite the army of teachers in the lower classes of the Grammar Schools, and in the Primary Schools, to be not only readers of our journal but contributors to its pages. We know they are ingenious enough to devise new methods of instructing; enthusiastic enough to awaken new life in their scholars; wise enough to find the best means of controlling them, and influencing them for good. Surprising results in these directions are often obtained. Let us lay them before all teachers, that we may help each other in the good and great work.

If our pages seem too heavily laden with matter relating to more advanced education, none can regret it more than we do. The remedy is with the teachers themselves. No article on elementary instruction has ever found its way into our waste-basket, or ever been laid over from one month to another. And here let us add, it is not merely carefully prepared articles we want, but any statements of fact, any suggestions, or even questions to be answered.

ANSWERS TO CORRESPONDENTS.

FRANCES. — We agree with you that it was very unwise to allow the school to get into such a state of disorder, but in so doing, we render you no assistance. The remedy must come through great forethought and watchfulness in the future. Get to the school-house before any of the pupils, and having your work all planned, begin to assign some task or occupation to each as he arrives. Let one put on the blackboard, a rule; another, a solution; this one, a synopsis of some verb; that one, a list of geographical names, etc.: or let all work on the first lesson of the morning. You will be surprised to find that after four or five are thus engaged, the others will be asking, "may I have something to do?" Follow up this beginning, by devices which will fix the attention upon whatever subject is under consideration; force this attention by an interesting manner, and soon your order will take care of itself.

"DOCEO DISCO." You have resolved to keep up with the times in all matters pertaining to your profession. Hundreds of teachers have made similar resolutions, and afterward fallen back from them and become satisfied with mediocrity. This is said not as a discouragement to high endeavor, God forbid, but to convince you, if you need convincing, that your hopes and desires will only be realized by persistent and protracted effort. First, be fully posted in the daily work of your school-room. A young teacher recently shocked her co-workers by giving out that the city A was capital of the State B. They contended that C was the capital, but on examination found that she was correct. Her stock immediately rose above par.

At a late examination in Astronomy, one of the pupils said there were one hundred and four Asteroids. "Are you sure?" asked Dr. G. "Yes, sir." "But hasn't one been discovered lately?" "Yes, sir, about a fortnight ago," said the boy, triumphantly, and that made the one hundred and fourth." "Well, Professor," said the Dr. to the teacher, "you keep ahead of me."

Secondly, make the whole field of education a diligent (*diligens*, loving) study; read the magazines and attend the meetings of teachers. Your heart will thus be kept warm in the glorious work, and your success will be certain.

"BANKING." Had you been present at the Educational Room on February 5th, you would have heard from the lips of Mr. Walton that which would have exactly answered your inquiry. Come the next time. First and third Saturdays of each month, you know, at 2.30, P. M. Mr. Walton said that when the subject of Banking was under consideration, he used to have the pupils prepare notes for discount, and then conduct them by squads to the bank across the way, where the very obliging cashier would receive their notes, go through the calculations aloud with

each scholar, ascertain the avails, and actually count out the money, requiring the child to count it after him, and see if it was correct. This method was pursued both when the avails were wanted on a given face, and when the face was wanted for stated avails. Mr. Kneeland thought that the children should have kept the money in order to make the transaction complete. Another gentleman pursued a similar course, but having no real bank convenient, appointed one of the best scholars cashier, and set up a bank in one corner of the school-room. By adopting a method like either of these, the difficulties of the subject will quickly disappear.

"ANN OYED." As long as schools continue to be centres of influence, they will probably prove centres of attraction to those who wish to secure patronage, and the work of the teacher will often be interrupted by dispensers of all sorts of wares, from slate pencils and note paper to improved text-books and tickets to old folks' concerts. A master of one of the city schools concluded that this business had gone about far enough, when one of the graduates of his establishment came to him a few days ago with a lot of cards, saying that she had set up a confectionery shop just around the corner, and would like to have him distribute her cards among his pupils. All things considered, he deemed it his duty to put the cards into the furnace.

If an agent or pedler is courteous and willing to wait until a recess or intermission, and the town has established no law forbidding the pursuit of his avocation in the school-room, the teacher may favor him with a hearing; but just as sure as he tries to *press* his affairs upon the attention of the school, let him know that its proper work cannot be interrupted; and if he then persists, tell him that he is liable to prosecution for disturbance.

"MISS PELL." The only way of making your pupils spell correctly, in every exercise where either oral or written spelling is desired, is to insist that every error shall be remedied so often that the habit of accuracy will be established. To secure variety in the method of recitation, give occasional dictation exercises, and once a quarter, rouse the scholars by an old-fashioned spelling match. A good way of obtaining difficult words is to secure lists of those which have been misspelled in compositions and other writings, and also to request each one to bring in ten hard words; from these supplies you can select such as will suit the exact wants of the school.

"STAR GAZER." Your idea is capital. Embody it in an article for this Magazine. There can be no grander "Object Lessons" for our somewhat advanced pupils, than to learn the names and to observe the places of the prominent constellations. Father Conant of the Bridgewater Normal School used to take his lantern, celestial globe, and classes out under the clear sky of open winter, and treat the students with this heavenly manna.

"X. L." Few pupils will accomplish as much as the teacher desires, if the assignment of the lesson is, "Get as far as you can." Children are very fond of set limits, near at hand, and we must yield, in appearance at least, to this fancy; while the sum total of daily work may not be less than our most careful estimate. Their minds are made hostile to their work, if the length of a lesson seems excessive. Short and frequent exercises will prove better than others. Instead of one arduous task which will require an hour of preparation and another of recitation, divide study and recitation into halves; put these halves some distance apart, and see if you do not obtain more satisfactory results.

Several inquiries are left over to be answered in our next. Any one desiring information upon points connected with education is hereby invited to send his questions to the Editor. W.

MEETING AT THE EDUCATIONAL ROOM.

FEB. 5, 1870.

Question: How many branches may a pupil profitably pursue at a time? M. G. DANIELL of Boston, Chairman. The subject proposed for our consideration, today, is an exceedingly important one to every teacher who does not unquestionably acquiesce in the system to which he has been accustomed. It is, moreover, a hard one to answer positively, because there are many circumstances which must modify all general rules for special applications; yet the normal mind is everywhere the same, and the number of studies must depend almost wholly upon the stage of culture to which the pupil has attained.

In strictness, I suppose we ought not to allude to the character of the branches pursued; still as some require more and some less time than the average, we can hardly keep this consideration entirely out of account. Assuming, then, that the studies are adapted to the age and capacity of the scholars, we will consider what the number should be in the different grades of schools.

In the Kindergarten, very young children are systematically trained into an exercise of all the senses and faculties, which without such instruction and guidance would be developed in an incomplete and desultory manner. The number of studies here is almost limitless. A dozen different "ologies" may be considered in a single day. The name of a flower, a bird, a fish, some property of the lever and inclined plane, a song, a moral lesson, etc.; changes being made from one theme to another as often as the mind gets wearied, and such subjects selected and methods adopted as will best subserve the great ends of education.

When the pupils advance in mental power, the number of branches is diminished, and the amount to be learned in each increased. In our Primary Schools, therefore, we fix upon a few leading studies, devote to them the greater part of the time, and yet retain a liberal allowance for

mental gymnastics. In the grammar departments, the main branches have become so prominent that they nearly overshadow the minor. In the High School and College, the attention is closely bound to language, science, and mathematics, and, finally, in the Professional School all the investigations pursued are designed to subserve the one calling to which the student had devoted himself.

In all this there is an evident harmony with nature's plan of mental development, and certainly no system of education can be right or successful which violates ntaural laws, and its utmost aim must be to supplement those laws, and to accomplish for the mind what unaided nature could not do. The course from the general to the particular must ever be long and tedious, and a considerable ripeness in years and mental power must be attained before an individual can fix his attention upon one study for a long period continuously.

At the present time, in our medium grade of schools, the old course of reading, writing, and arithmetic would prove too meagre, and whether the culture afforded is better or not, the teacher must yield to the demands of the hour, and with the total number of studies to be pursued determined for him, ask himself the question, what number shall be taken during a given period.

Have you ever tried the experiment of having the entire time for a week or a month given to one or two studies, and then dropping those entirely, taking up others, and so alternating, week by week, or month by month? What is your opinion of the usefulness of this method? Which would be better, to give a short lesson in arithmetic daily, or to give a longer lesson on alternate days? Or, again, to have arithmetic, grammar and writing for a month, and then geography, history and reading for another?

I have known a lesson in writing to be given for two hours daily through a period of three months, and remarkable progress to be made; it was then dropped for the rest of the year.

What is the golden mean between allowing half an hour to each of all the lessons that can be crowded into a day, and pursuing the method of the English schools, where Latin grammar and nonsense verses used to form the staple food for six or eight years?

Mr. SMITH of Boston. It is doubtful whether teachers can deliberately settle what and how many studies shall be pursued at a time. That is in a considerable measure beyond our control. A great variety, however, will lessen the child's consciousness of progress, and furnish cause for discouragement. In determining the number for an individual, regard should be had for his mental requirements — not his own conceived wants, but those which will secure for him a liberal, all-sided training. Henry Kirke White was conscious of the element of culture which he lacked when he wrote in his journal, "Henceforth pay more attention to mathematics, for I strongly suspect I do not like them." Almost any study however unattractive at first, may become interesting and profitable by earnestly pursuing it.

Mr. COLLAR of Boston. I am not certain that the number of studies to be taken rests upon any principle which can be distinctly announced. *A priori*, a young pupil will require a greater range of them than an older one, but the method adopted in the conduct of a course of study and recitation will probably effect the number. If, as in the schools of New York, all the time of the session is devoted to recitation, a larger variety will be needed than where opportunity is afforded for solitary study in the schoolroom. The greater the number, the more severe the tax upon the mind of the teacher; and his capacity will be a natural limit to the list.

As the mind, like the body, is rested by a change of labor, an increased variety may be secured by turning from severe reasoning to drawing or writing. In the German gymnasium, related subjects, such as mathematics and physics, occupy hours near each other. Habits of concentration are thus attained sooner than by frequent changes to unconnected studies; but if the pupils are young, it may be better to have two separate exercises per day in Greek, for example, than one long continued.

Mr. ARMITAGE of Dedham. The number of studies must depend largely upon the classification of pupils. A city school, thoroughly graded, can pursue methods entirely impossible in the country, when the country schools have pupils of all ages and a dozen different classes.

Some teachers in the latter case conduct recitations in every branch each day, and others give all the time needed for a study, and begin the succeeding day where they left off the night before.

Mr. WALTON. As far as the question applies to our grammar schools, I have never seen any inconvenience arising from the number of studies usually pursued, — namely, arithmetic, grammar, geography, reading, writing, and spelling. I have been able to hear a recitation in each of these four times a week, and of about forty minutes' duration. Recitations conducted for a longer period at a time will prove unprofitable.

Mr. PAYSON. I would have the time of recitation limited by the interest taken in it. If the pupils become inattentive after twenty or thirty minutes, let the exercise close, but if they give attention let it be continued as long as possible, without seriously interfering with other studies. In some branches where close thought is requisite, I should prefer one hour every other day to half an hour daily. There are very few pupils who can take more than four studies during the same period of time.

Mr. WINSHIP of Bridgewater. All our teaching should be systematic; not that with the youngest children the system adopted should stand forth with any prominence to their minds, but that the teacher should have a definite end in view in every topic and in every method. Otherwise the instruction will become mechanical or loose, and the children will be deprived of one of their greatest pleasures, the consciousness of progress in acquiring knowledge. In the lower grades of schools, short lessons and short recitations at frequent intervals will secure the best results. Let one point be faithfully considered and then left. After the

mind has become rested by some change of employment, another point can be taken up. In this manner, confusion of ideas will be avoided and the proper sequence of thoughts regarded.

Mr. Winship illustrated his views of systematic methods by giving a very interesting account of how he tamed a crying baby on board the cars.

N. E. W., *Rec. Sec.*

MEETING OF CLASSICAL AND HIGH SCHOOL TEACHERS.

THE third annual meeting of the Massachusetts Association of Classical and High School Teachers was held at the English High School-house in this city on the 25th and 26th of February last. In interest and profit it was not less successful than its predecessors. No small share of this success must be ascribed to Dr. Taylor, who has been the President of the association from its foundation, and who, we are glad to say, has consented to fill this position for another year.

At the opening of the session, a statement of the finances by the Sec'y showed that nearly money enough had been collected the preceding year to pay all past claims, and defray the expenses of the session then being held.

Several amendments to the constitution proposed by the Secretary were referred to a committee consisting of Messrs. Hammond of Monson, Parsons of Waltham, Frisbie of Northampton, and Bradbury of Cambridge. Messrs. Collar of Boston, Rugg of New Bedford, and Hills of Lynn, were appointed as a committee to nominate officers for the ensuing year. The discussion then began upon the pronunciation of Greek.

Dr. TAYLOR, in opening the discussion, said that teachers were much embarrassed by not knowing what system to adopt. At Harvard College, according to Prof. Sophocles, there were not less than thirteen different styles of pronunciation.

Mr. GARDNER, Head-Master of the Boston Latin School, said that he did not follow his own belief. He believed in pronouncing by quantity, but had been coerced to change twenty years ago, — a thing which he ridiculed then as he was ready to ridicule now. As there were so many methods of pronunciation, he thought it was immaterial which was adopted; even the teachers in his own school did not pronounce alike. He did not suppose any modern system of pronunciation would be intelligible to the ancient Greeks and Romans. For his part he did what Harvard told him to do. He was ready to "float with the tide."

Mr. BURNHAM, in discussing the question, considered first what in the abstract ought to be, and second, what is best under all the circumstances. The Greek Language is no more a dead language than the English or French, but is spoken in the streets of Athens now; and the standard of pronunciation *ought* to be that of the modern Athenians, which he

maintained was the most beautiful and melodious system. It was not exactly like the Continental method, though the vowel sounds were substantially the same. The subject of accent he thought was a difficult one to deal with. In order to preserve linguistics and metaphysics from the tendency of modern times to neglect them, they ought to be made as interesting and attractive as possible. It was better to have a *poor* system and follow it accurately, than to go on with uncertainty in a really good one.

Messrs. PERKINS of Lawrence, and PARSONS of Waltham, spoke briefly upon the topic, and gave some facts in relation to the diversity of pronunciation in Harvard College. It was stated that not only the professors differ among themselves, but individual professors pronounce the same words differently on different days.

Prof. TAYLOR said that the main consideration for the retention of the Continental or modern Greek system of pronunciation was, that the higher institutions require it. If it was the general conviction of the teachers that the old English system, which possessed at least the dignity and authority of age, was the best, he hoped they would express the feeling. He should rejoice if the old system that was taught fifty years ago could be again revived and generally adopted, and he thought it would be for the benefit of the country if it was again made the standard of pronunciation.

A committee, consisting of Messrs. Taylor, Burnham, Bradbury, Gardner, and Smith, was appointed to prepare and report resolutions upon the subject for the action of the association.

The second subject was then taken up, and Mr. SMITH of Dorchester read a very interesting paper upon it. He defined a classic as any writing which embodies the highest thought or describes the highest action in the clearest, strongest and most beautiful language. It is only when language clothes the noblest and tenderest emotions, and embalms the most heroic deeds, that it is classic. When we speak of classic education as simply education in Greek and Latin authors, we exclude much of that which is most classic in ancient thought. Classic influences of greater value have come from Judea than from Rome or Greece.

The speaker quoted Bunyan to show the qualities of style which he acquired from the Hebrew classics, and spoke at length of the influence which the effusions of the sacred writers of Palestine had upon our best modern writers.

He claimed that Shakspeare was a first-class classical scholar. He thought it a matter for regret that the study of our own vernacular had been disconnected from the classic originals, and advocated the use of good translations, and showed how the Latin authors and modern English translators and writers of a similar style could be combined in instruction. Grammars, he thought, should be used with care and kept in their place. He read extracts from educational works to enforce his ideas.

Rev. Mr. TUFTS, of Monson, read an essay on the same topic. He

thought the grammatical knowledge to be derived from the study of the classics assists very much in acquiring good English style. From the drill of translating comes clear ideas, and a precise expression to the student. Irving, Motley, Prescott, Webster, and many other eminent writers, owe their simple, forcible and perspicuous style to classical training. Other things being equal, a classical knowledge will lead to a greater success in the various employments of life, and the truth of this is gradually coming to be acknowledged.

Mr. HUNT, Master of the Boston Normal School, stated that he was opposed to the wasting of so much time in the study of the ancient classics. He believed that all the advantages could be gained from good translations At one o'clock the morning session was adjourned.

The meeting reassembled at half-past two o'clock, when Article 3 of the Constitution and By-Laws was so amended as to read, "That the officers of the society shall consist of a president and four vice-presidents; a recording secretary, who shall also act as treasurer; a corresponding secretary, who shall also act as collector of all moneys and auditor of accounts. These officers shall constitute a Board of Directors, who shall have the power to call special meetings of the society."

The Association then adopted the following resolutions reported by the committee appointed in the morning:—

Resolved, That in view of the difficulty found by experience in securing uniformity and accuracy in Greek pronunciation by adopting the modern Greek and Continental system, this Association recommends a return to the English system of pronouncing both the Latin and Greek.

The following subjects were then announced for discussion: — "The effect upon the preparatory schools of the new requirements proposed for admission to Harvard in mathematics," "How much time ought to be given by those fitting for college to the study of mathematics?" and "Ought physics to be taught to those fitting for college?" President Eliot of Harvard College, being present, was invited to address the association. He said that the new requirements referred to in the subjects before them for admission to Harvard College were merely proposed; no change had been made, and he doubted if any further change would be made. The proposition proceeded from the board of overseers, and within two weeks a resolution was passed in favor of the adoption of new requirements "as soon as practicable." The standard in mathematics had been raised somewhat within two years, and he did not suppose it would be again raised for four or five years, at any rate. In regard to modern languages, a single change had been made this year. Next year the examination of applicants for admission in French would be as difficult as that now held at the beginning of the year, and the student that could pass the examination would not be required to study French the first year. Those who could not would be allowed to study French as they now did. This would make a slight inducement for students to acquaint themselves

with the elements of French before they entered college. On being questioned in relation to English literature, Mr. Eliot said that Mr. Thomas Lee had left a bequest, a portion of which was given each year in prizes to those who were the best readers in the freshman class. This year three hundred dollars was distributed in five prizes, and next year he supposed more money would be spent in that way. He thought more attention should be paid to English in the preparatory schools. He thought it possible that the requisition for admission to the college in this department might be raised the present year, but nothing had yet been determined on that point. In relation to physics, Mr. Eliot said, that he thought if that word related merely to mechanics, applicants for admission should have a knowledge of the elements; but if it related to light and heat to chemistry, he thought there would be no requirements of that sort, as these studies were not suited to persons so young. It was not likely that the number of Greek authors which it was necessary to have a knowledge of to enter Harvard would be diminished, or the amount diminished, but he hoped the number of years devoted to the preliminary training in Latin and Greek would be reduced by improved methods of teaching, thereby leaving more time to be given to other studies. The tendency of scientific schools, he thought, was to adopt the same requisitions as those of the colleges, so that boys could pursue the same course in preparatory schools, whether they entered college or the scientific institutions. He hoped the schools would hold on to their present programmes, with such slight modifications as would be found possible by giving up a portion of the time now devoted to Latin and Greek.

These statements of President Eliot were made partly in answer to questions from members of the association. Mr. SMITH, of Dorchester, thought that an examination in English literature ought to be required for admission to college. Mr. PERKINS, of Lawrence, believed that teachers had been too much influenced by the requirements in mathematics, that not enough was required to enable the student to take up profitably the college mathematics. Mr. COLLAR, of Boston, was strongly in favor of boys having some degree of preparation in English literature. President Eliot stated that the college did not expect an acquaintance with English literature, but only with *English*.

In answer to Mr. HILLS, of Lynn, who asked how, in the time allotted, scholars were to go over the preparatory course required, President Eliot said, that he thought much of the difficulty was in the schools below the High school; that, considering the amount of progress, too much time was spent in these lower schools. Remarks were also made upon these topics by Messrs. HAMMOND, GREGG, ANDERSON, BURNHAM, GARDNER, and PARSONS.

Mr. COLLAR, of Boston, read a carefully prepared paper upon the question, "To what extent, and in what way, ought derivation in language to be taught."

Mr. DANIELL, of Boston, also read an excellent paper upon the same topic, drawing his illustrations from the French language.

In answer to a question from Mr. Gardner, President Eliot and Prof. Goodwin both stated that they believed in the scientific teaching of the French language.

At five o'clock the association adjourned till evening.

On the reassembling of the association at half-past seven, a paper was read by Mr. BRADBURY of Cambridge upon the question, "How far should the translation of a language conform to the original?"

The points which he considered essential to a good translation were: —

1st. That the exact meaning of the writer should be expressed:

2d. That this should be done in idiomatic English:

3d. That so far as is consistent with the first two points, the translation should be literal.

These three points were enforced, and illustrated by sentences from Latin and Greek authors."

Mr. GARDNER agreed with Mr. B. in theory, but believed the thing impossible in practice. With his boys, the difficulty was not in getting *good* English, but in getting any English at all. He insisted upon a literal translation. If a boy was not obliged to translate literally, he soon forgot the construction.

Mr. COLLAR believed that boys should be required to make the most elegant translation possible, and that it was the duty of the teacher, after his pupils had attempted a translation, to show them, if possible, a better way. The president and Mr. Burnham related several ludicrous mistakes that had arisen from a too literal rendering of the original.

The PRESIDENT believed that translations ought always to be made in idiomatic English.

Mr. PHIPPS, of the Board of Education, spoke of the difficulties attending the teaching of the classics in a large portion of the High Schools of the State, where one teacher was required to teach all the various branches in those schools.

Mr. GARDNER defended his pupils from any want of ability, for he contended that they could render their translations into as good idiomatic English as any boys elsewhere. What he meant to say in his remarks was, that his boys were not absolutely correct.

The association met for the last session of their third annual meeting Saturday morning at 9 o'clock, the president, Prof. S. H. Taylor, in the chair.

The question taken up for discussion was, "Points of Difference between Latin and Greek." The discussion was started by Prof. Taylor, who compared the relative advantages of study in the two languages, and their fitness for disciplining the mind. He seemed to favor the Greek, and said that though it was not governed by general laws, like the Latin, yet it was fuller, richer, and more comprehensive.

Mr. HUNT, of the Boston Normal School, asked Dr. Taylor whether a greater variety of forms made a language more perfect. Is German more perfect than French? Is the Chinese the most perfect language in the world?

Dr. TAYLOR in reply said, that Greek was more perfect than Latin; that there were sentences in Latin in which it was still disputed whether the perfect definite or the perfect indefinite was used. He did not, however, think that a great variety of termination was *necessarily* a great advantage.

Mr. HUNT asked if a boy, qualified to enter college, got any idea from Latin and Greek except that conveyed by the English words he used. If this is so, then, he maintained, we could dispense with the original entirely, and use only good translations, and get all the benefit.

Mr. PHILBRICK, Superintendent of the schools of Boston, desired Mr. Hunt to state definitely whether he believed that the study of the classics was useless. Mr. Hunt, while admitting that these should be pursued by those who desired a thorough classical education, stated his belief that for a general practical education it was better to use a good translation than to spend the time frequently occupied in these studies. Mr. Philbrick desired a more definite answer, as he did not think that the heads of the two leading schools in Boston ought to occupy antagonistic positions. This discussion was closed by Mr. Gardner, who stated that he and Mr. Hunt "agreed almost totally."

The "Special claims of Greek as a study" was the next topic taken up for discussion. Mr. Hammond, of Monson, in opening the discussion, said that he did not believe in discarding Greek, — that our progress depended largely upon our progress in Greek.

Prof. GOODWIN, who was then called upon, said that he wanted some one to speak on the opposite side first; that he felt like one called upon to defend the Christian religion.

Mr. GARDNER, of the Latin School, promised to give him a text. He believed that both Latin and Greek would be swept out of the general schools of the country, and within a generation the Greek would be placed on the shelf in the colleges, as Hebrew has been. He thought the present tendencies were sufficiently strong to produce the change.

The world tends to material things — to grow men. *Pressure* is crowding Greek out. Greek is taught to explain Scripture. He believed that an overwhelming majority of ministers would make more headway in their *English* Testaments. He did not believe that any boys comprehended the Greek and Latin orations when they entered college.

Once, a knowledge of the classics was considered essential to a good education, and as a means of distinguishing between a man of learning and those unlearned. Such was not the case, now; for a man might have a good education without a training in Greek or Latin.

Personally he would not hasten the abandonment of Greek, but he

thought that so far as any benefit resulting to the great mass of students was concerned there would be more by giving it up.

Mr. PHIPPS, of the State Board of Education, asked Mr. Gardner if Greek ought to be given up. To which Mr. Gardner answered, "Float with the tide, sir."

Professor GOODWIN said he wished to reply to some gentleman who really believed that Greek was useless in a general education.

The importance of Hebrew in a theological point of view had been overrated. In 1760 one of the questions discussed in a theme at college commencement was whether the faithful in the future world would use an articulate language, and, if they did, whether this would be the Hebrew. He thought the only chance to save Latin and Greek was to make them elective, and have those who do study them study them thoroughly. "In Göttingen formerly in order to get his degree the candidate was obliged to write his life in Latin. Many who thus put their lives under a curtain, he said, couldn't translate their lives to save their lives. More study Greek under the elective system than before. Now and then it took off the best scholars; but at any rate it took off the dunces. No one wishing to be liberally educated could afford to give up Greek and Latin. If French and German could be taught by Mr. Gardner they would discipline the mind.

The study of a language, as such, was of great value, and especially the study of a language so copious in its forms as Greek. A person cannot get the correct idea of the imperfect "did" without being acquainted with some other language; for the elucidation of such points the Greek was the best.

He could write six or eight different tenses, — the present, — the imperfect, — the aorist, — two or three optatives, — two subjunctives, which could be correctly translated by "did."

A legal document could not be drawn up accurately by a person acquainted with English only.

Mr. SMITH did not think the study of Greek was disappearing. There was a time when there was no such study.

The study of Greek began with the revival of learning at the time of the downfall of Constantinople. Plato was not going to be out of date. The hue and cry about the decline of the classics would be a nine days' wonder.

Mr. GARDNER thought that nearly all the students of the present day made use of translations, and that nine-tenths of the graduates of colleges profited nothing by the study of the two languages.

Mr. S. BURNHAM made some remarks upon the subject, claiming that Greek should be retained for the purpose of bringing an influence to oppose the materialistic and pantheistic tendencies of the age.

Mr. COLLAR, of Boston, presented the report of the nominating committee. The following is the list: —

President, Dr. Samuel H. Taylor; Vice-Presidents, Elbridge Smith of Boston, Charles Hammond of Monson, M. C. Stebbins of Springfield, Albert C. Perkins of Lawrence; Recording Secretary, W. F. Bradbury of Cambridge; Corresponding Secretary, J. C. Parsons of Waltham.

Though he had previously declined a re-election, Dr. Taylor consented to serve, with the proviso that his duties be somewhat lessened.

The report was accepted, and the gentlemen named were unanimously elected.

The subject of "The right interpretation of some grammatical symbols in Greek and Latin" was next taken up, and Mr. Chas. H. Taylor of Andover read a paper upon the Greek imperfect tense. He was followed by his father, Dr. Taylor, with a short essay upon the Greek symbols. After remarks had been made by one or two other gentlemen, the discussions were closed.

A vote of thanks to the School Committee of Boston for the use of the building was unanimously passed.

Proper notice was taken of the death of Mr. Thomas Sherwin, late Head-Master of the English High School, and one of the Vice-Presidents of the association at the time of his death. Extended remarks were not made, as they had been made elsewhere and published. On motion of Mr. Hammond, the following resolution was unanimously passed:—

Whereas: Thomas Sherwin, a member of this association, has been removed by death during the past year, therefore,

Resolved, that we hereby express our deep sorrow for the loss of our associate, who was honored through his long career as Head-Master of the English High School of Boston, as one of the very best educators and teachers of our times.

At half-past twelve the association adjourned *sine die*.

W. F. BRADBURY,
Rec. Sec.

EXAMINATION QUESTIONS.

Used at the examination of candidates for admission to the Girls' High and Normal School, Boston, July 21, 1869.

ARITHMETIC.

1. What is the value of $\frac{6\frac{3}{7}}{4\frac{1}{9}} \div \frac{3\frac{1}{2}}{7\frac{1}{5}}$?

2. Find the greatest common measure and the least common multiple of 32, 42 and 64.

3. How is the value of a fraction changed by increasing its denominator? Give the reason.

4. Divide $62,000 between 5 men and 3 boys, giving each man 2½ times as much as a boy: what will each receive?

5. Bought a horse for $200. What must I ask for him in order to gain 10 per cent, and still fall 10 per cent on the asking price?

6. What is the amount, from Jan. 1, 1868, of 75 cents for 1 yr. 7 m. 27 d., at 7 3-10 per cent?

7. The extremes of a proportion are 9 and 16; one mean is 12. Write the proportion.

8. Divide seven ten-thousandths by fourteen thousand.

9. Two men can do a piece of work in 7 days; one can do it alone in 10 days: in how many days would the other do it?

10. Extract the square root of 7.5, finding four figures in the root.

GRAMMAR.

1. Write the nominative plural of *deer, staff, it, Mussulman, penny, cattle.*

2. Compare *nigh, far, golden, richly.*

3. Write a single sentence containing a personal pronoun, a demonstrative pronoun and a relative pronoun.

4. Define the following terms: *antecedent, passive, nominative, ellipsis.*

5. What is a *proposition?* A *predicate?*

6. Illustrate, by two or more sentences, the difference between the verb *sit* and *set.*

7. Give a synopsis of the verb *see*, in the third person plural.

8. Correct the following sentences: —

We done it better than him.
Whom do you think has been to our school?
Most all persons thinks so.

9. Analyze the sentence: —

He who plants an oak looks forward to future ages, and plants for posterity.

10. Pass the verbs in the following sentence: —

"Like the leaves of the forest when summer is green,
That host with their banners at sunset were seen."

GEOGRAPHY.

1. What is the cause of the Seasons?

2. Define *Delta. River-Basin. Right Bank of a River. Watershed. Plateau.*

3. Bound the State of New York. Name its exports, and four of its principal cities.

4. When it is winter in Boston, what is the season at Sydney, Australia?

5. Into what does the Rhine flow? The Don? The Volga? The Rhone? The Severn?

6. What mountains would you cross in going round the world on the fiftieth parallel of north latitude?

7. Why are the rivers of Europe smaller than those of America?

8. How many States and Territories in the United States of America?

9. Name the principal commercial city in each grand division of the earth.

10. How long is the longest day at the polar circles? At the Poles? At the Equator?

HISTORY.

1. Who discovered North America? South America? Who first circumnavigated the globe?

2. What civil communities in this country first recognized free toleration of religion?

3. State the successive encroachments of Great Britain upon the liberties of her American colonies.

4. What important measures did Congress adopt in the latter part of the year 1776?

5. Name two of the most important battles of the Revolutionary War, and give a reason for the importance of each.

6. What commanders were opposed to each other, and who were victorious, in each of the following battles: Trenton, Brandywine, Eutaw Springs, Cowpens?

7. What were the principal events of Jefferson's Administration?

8. What important acts were passed by South Carolina in 1832 and in 1860?

9. What is a protective tariff?

10. What war was terminated by the treaty at Versailles? Guadaloupe Hidalgo? Ryswick? Ghent?

INTELLIGENCE.

MASSACHUSETTS.

The report of ABNER J. PHIPPS, agent of the Board of Education, is not a bulky document, but a very suggestive one. In 1838, the value of the school-houses of Massachusetts was $550,000, an average value of $200. In 1868, the estimated value of 3,350 school-houses was $9,604,000, or $2,866 each. Last year, the amount expended for erecting school-houses was $1,037,388, and for repairing, $257,965. Still Mr. Phipps finds in some of the towns school-houses which are a disgrace to the State.

There are now in the State 175 high schools in 162 towns, in 35 of which they are not required by law. Mr. Phipps has visited 55 of them, and bears witness to their great efficiency. Two of these were under the entire management and instruction of lady teachers, and were as well, taught and governed as any he visited.

No profession, Mr. Phipps thinks, falls so far short of its objects as that of the teacher; and no other so imperatively demands such careful, thorough training. The normal schools can supply but a small proportion of the number of teachers required. The training schools established in some of the large cities are doing good work. The number of them should be increased. "Teachers' classes" in the larger academies, and high schools are also recommended. The necessity of a more thorough supervision of schools is urged.

We presume this report will be generally read, and we hope its wise suggestions will be heeded.

NORTH CAROLINA. — The report of S. S. ASHLEY, Superintendent of Public Instruction, indicates that this State is moving in the right direction. The public school fund is in gross $2,065,342.43; but unfortunately, of this sum $1,047,100 is worthless bank stock. There are in the State 330,581 persons between 6 and 21 years of age. The number of schools is 1,906, and the apportionment of school money was $155,290.50.

GEORGIA. — A committee, appointed by the Georgia State Teachers' Association, has reported a system of public instruction for that State which in the main the legislature would do wisely to adopt. But is it necessary for the State to provide for separate classes of schools, white and colored?

MISSOURI. — The report of T. A. PARKER, Superintendent of Public Schools, with its statistical tables and reports of the heads of public educational institutions, and of county superintendents, makes a very valuable document. Number of children in the State between 5 and 21 years of age, 584,026; number of children in public schools, 249,729; number of teachers, 7,146; number of public schools, 5,307; value of school-houses, $3,087,682; paid for teachers' wages, $864,672.

PERSONAL.

REV. J. W. TWOMBLEY, of Charlestown, has resigned the office of Superintendent of Public Schools.

PROF. B. F. TWEED, of St. Louis, formerly a professor in Tufts College, has been elected to fill the above vacancy, and has entered upon the duties of his office.

A. H. WENZEL, who has been principal of the high school in Marlboro' for the last four years, bids adieu to the profession, and enters upon the practice of law. He was very kindly remembered by his scholars at the close of his term.

WM. H. CROCKER has been appointed master of the West Randolph Grammar School in place of Chas. R. Coffin, resigned.

MISS CLARA BARTLEY has been appointed assistant in the Thorndike School, East Cambridge. Salary, $550.

MISS NELLIE M. GIFFORD has taken charge of the Intermediate School, Newton Lower Falls. Salary, $550.

CHARLES A. BARRY, late one of the principals of the Boston Academy of Art, has received an appointment as instructor in drawing in the pub-

lic schools of Boston. Mr. Barry has been identified with the fine arts and their associations for a period of twenty-five years, and has practised his profession as an artist and teacher in drawing in many of the largest cities of the Union. He visited Europe in 1867, and established his theories and practice as a teacher, after studying the methods in use there. His duty for the present will be to visit all the city grammar and primary schools, and make himself acquainted with the teachers, and their wants, as instructors of the pupils under their charge.

ITEMS.

— Jay Cooke has given $10,000 to establish a fellowship in mathematics at Princeton College.

— The Board of Education of Indianapolis, Indiana, has declined to introduce the study of Greek into the regular high school course.

— Professor Lowell's new word "undisprivacied" is called "a four-story polysyllable with a French roof."

— Mus. Doc. being rather an awkward degree, Fiddle D. D. is recommended as the proper thing for musicians.

— The young ladies of the Rochester Free Academy write their lessons on the "broad hem of their white aprons, which they refer to during recitations with admirable success."

— Burleigh Pease is a most efficient and popular teacher. A youth named Bean, who attends his school, was reciting his lesson one day and hesitated a moment, when the teacher remarked, "It takes beans a long time to sprout." "No longer than peas, sir," replied the boy.

— An Ohio teacher, lately on examination, being asked, "What would you do to a pupil who whispered?" replied, "I would first use moral suasion, and if that failed, would resort to capital punishment." She was excused.

— A Spaniard, in the first pages of his English grammar, desiring one evening at table to be helped to some boiled tongue, said: "I will thank you, Miss, to pass me the language."

— Sergeant Talfourd, one of the most accomplished men of his time, could not spell. Having occasion to write the word *hear* three or four times in a page, in one place he would write it "heer," in another, "here," and again, "heir."

"S," in the "Boston Transcript," tells of one Mr. John Hart, who was a bassoon player, and one of the ushers in the Hawkins street school. He had seen him fall asleep at his desk, after being up all night at a party or musical performance. That was fifty years ago. Who of the present generation ever saw a Boston teacher asleep?

— The *Editor's Drawer*, in "Harpers'," has something in the educational line. A practical parent objects to the silliness of our nursery rhymes. So the *Drawer* gives out the following as improvements,—How beautifully science, Latin, and philosophy are thus infused into the infant mind!

Wrinkles, Wrinkles, solar star,
I obtain of what you are,
When unto the noonday sky
I the spectroscope apply;
For the spectrum renders clear
Gaps within your photosphere,
Also sodium in the bar
Which your rays yield, solar star.

Studious John Horner,
Of Latin no scorner,
In the second declension did spy
How nouns there are some
Which ending in *um*,
Do *not* make their plural in *i*.

Jack and Jill
Have studied MILL,
And all that sage has taught too,
Now both promote
Jill's claim to vote
As every good girl ought to.

CORPORAL PUNISHMENT IN CAMBRIDGE.

AT the late meeting of the School Committee of Cambridge, the superintendent of schools reported, according to instructions, that there had been twenty-six cases in the Grammar schools and forty-five cases in the primary schools within the year, of the punishment of scholars by shaking them, but he was unable to decide whether it amounted to a violation of the existing rule respecting corporal punishment.

On motion of Rev. Kinsley Twining, the clause prohibiting corporal punishment was stricken from the rules and regulations by a vote of *nine* to *four*. The following was substituted for the section stricken out: —

"No scholar on entering the schools of the city shall be subject to corporal punishment in any form; but if such scholar prove to be disorderly and refractory, on due notice to parent or guardian and to the committeeman having charge of the school, such scholar shall be liable to corporal punishment during the remainder of the term; but no such punishment shall be inflicted during the session in which the offence occurred. All cases of corporal punishment shall be reported to the full board."

Mr. Twining took the ground that the teachers were now seeking to

preserve discipline without having the sanction of the law in so doing. Pupils are aware of this, and consequently in frequent instances defy the teachers. He named an instance of this occurring a few days since in the presence of the superintendent of the schools, the superintendent of the training school, and two teachers, beside the speaker.

There proved to be no method of reducing the turbulent lad except by the threat made jointly by those present that he should be given into the hands of the police. Other objections urged by the speaker were, that the effort to maintain discipline under the present system exhausted the vitality and health of the teachers; that persons of sufficient force of will to get along without an ulterior resource, a reserve of authority, were very rare, and could not be secured for the service of the primary schools at less than $1000 per year for each teacher; and that the time of the members of the Committee was now largely taken up in the personal investigation of instances of turbulence, a duty which did not legitimately pertain to the office of the School Committee. The discipline of the schools devolved on the teachers, and the Committee should not take away the power of the teachers to secure discipline.

Messrs. Mason and Williston spoke in favor of some modification of the rule.

Mr. J. H. Tyler related an instance of a teacher whose health had been broken down by her efforts to maintain discipline under the present system.

Mr. Sawyer thought that the committee had no legal authority to legislate on the question of corporal punishment as they had, by substituting therefor expulsion of pupils as a penalty for disorderly conduct. A suit was pending in Essex county at present, wherein a parent had brought an action for damages against a School Committee for expulsion of his child, and the speaker's opinion as a lawyer was, that the parent could recover; and he thought if any parents in Cambridge similarly aggrieved should bring a suit, the committee would find themselves with no legal ground to stand on.

BOOK NOTICES.

ENGLISH LITERATURE. SHELDON & COMPANY, New York, gave to the American public a few years ago *Shaw's Complete Manual of English Literature.* This has been extensively used, and is, as far as we know, the best text-book upon that subject. They now publish a *Smaller History of English and American Literature,* edited by Dr. William Smith and H. T. Tuckerman, for more general school use. It has the excellences of the larger work, and its size and plan render it more convenient, and better adapt it to the wants of many of our schools.

They have just issued from the press, also, *Shaw's Choice Specimens of English Literature,* edited by Dr. Smith, and adapted to the use of Ameri-

can students by Prof. Benjamin N. Martin, of the New York University. This is arranged as a companion-book for the *Manual*. It is, however, just the book needed in all schools where attention is given to English literature. Its selections not only show the spirit and style of the different writers, but elevate the taste. Many of these fine passages stored in the memory would prove a blessing in after life. We know of no better reading-book for advanced classes.

HARPER & BROTHERS. From A. Williams & Co., corner of Washington and School streets, we have received the publications of this well-known firm.

SKETCHES OF CREATION; with numerous illustrations. By Alexander Winchell, LL. D., professor in the university of Michigan, and director of the State Geological Survey. The wonderful revelations of the natural world to the scientific explorer are here unfolded in popular form. Sometimes it may seem that the author's imagination runs a little ahead of science; but he is a good instructor, and excites the greatest interest in his readers. The wonders of geology, zoölogy, and astronomy form the basis of the work.

JOURNAL OF A VISIT TO EGYPT. Hon. Mrs. William Grey accompanied the Prince and Princess of Wales on their visit to Egypt, Constantinople, the Crimea, and Greece. Here is the record of her journey. It has no interest beyond that centering in the persons composing the party.

THE UNKIND WORD and other stories. By the author of "John Halifax." Good reading, as are all the stories of this writer. Some of them are reprints, some original; all are interesting.

SO RUNS THE WORLD AWAY, by Mrs. A. C. Steele: UNDER FOOT, by Alton Clyde: and THE RULE OF THE MONK, by Gen. Garibaldi, are in paper covers, and seem to be good stories.

LEE & SHEPARD have published some good books for the young, and one upon a question which must be pondered by those older.

THE BIBLE AND THE SCHOOL FUND. — The Question of the Hour. By Rufus W. Clark, D. D. The main arguments in this work were first presented in a series of discourses preached by the author in the First Reformed Church of Albany, N. Y. They are strongly put, and plainly show the necessity of retaining the Bible in the common schools, and allowing no division of the school fund.

BREAK UP, or the Young Peacemakers. The Lake Shore Series. By Oliver Optic. Those who have read this story in Oliver Optic's Magazine, will like to have it in book form; and those who have not will of course want it.

THE TONE MASTERS. Mozart and Mendelssohn. By the author of "The Soprano." We are very sure the young people will improve this

opportunity of making themselves agreeably acquainted with the great music-masters of the world. This volume not only entertains but instructs. Other volumes will follow.

DIALOGUES FROM DICKENS. For School and Home Amusement. Arranged by W. Eliot Fette. This volume has been before the public but a short time, yet has been so favorably received that the publishers are obliged to issue a new edition. It contains forty-five dialogues, with an index to characters and costumes. They afford good scope for dramatic talent, and are sure to entertain.

A. S. BARNES & CO., New York, send us some new school-books which seem to us worthy the attention of teachers.

THE AMERICAN BOTANIST AND FLORIST: including Lessons in the Structure, Life, and Growth of Plants; together with a Simple Analytical Flora. By Alphonso Wood. The principles of the science are here presented in concise form. Each chapter is followed with a synoptical statement of its contents, an important aid to the student. The Flora contains the description of nearly 4,000 species, — all the known flowering plants, native and cultivated, of the Atlantic half of the United States. The book makes its appearance at a very opportune season, and will be the means, we hope, of introducing many to this most interesting of sciences. As a text-book, it reflects great credit on author and publishers.

THE FRENCH ECHO; or Dialogues to teach French Conversation with an adequate vocabulary. Edited by James H. Worman. This is, in the main, a reprint of *L' Écho de Paris*, a work very popular on the other side of the water. Its design is to enable the student to obtain a vocabulary of French words and phrases, such as are used in business, in society, and in the common conversation of the day. It seems to us much superior to the conversation books in general use.

ANSWERS TO THE PRACTICAL QUESTIONS AND PROBLEMS contained in the Fourteen Weeks' Courses in Natural Philosophy, Chemistry, and Astronomy. By J. Dorman Steele. A small book of eighty pages, which may be of some advantage to teachers. It gives practical information, and directions for performing experiments in chemistry.

CHARLES SCRIBNER & CO., New York, continue the publication of their *Illustrated Library of Wonders*, an extremely interesting and instructive, series of works.

THE SUN. By Amédée Guillemin. From the French, by A. L. Phipson. With fifty-eight illustrations. The sun as the source of light, heat chemical action; its influence, distance, motions, spots, eclipses, and all its phenomena, are here described in an intelligent and popular manner. It cannot fail to interest both old and young.

WONDERS OF GLASS-MAKING in all ages. By A. Sauzay. With sixty-three engravings. From the glass-makers of Thebes to the glass-makers

of the present time, the progress of this wonderful art is here described; all its processes, from the manufacture of common bottles to the most delcate and artistic ornaments. Full of interest.

THE SUBLIME IN NATURE; compiled from the descriptions of travellers and celebrated writers. By Ferdinand de Lanoye. Fifty illustrations. This includes the phenomena of the atmosphere, of the ocean; a description of mountains, volcanoes, rivers, waterfalls, caves, vegetation, etc.

A LATIN GRAMMAR for the use of schools. By I. N. Madvig. Translated by the Rev. George Woods. Revised and partially retranslated by Thomas A. Thacher, professor of Latin in Yale College. Boston: Ginn Brothers & Co.

Scholars and teachers will be glad to welcome this new edition of one of the most useful books of reference on Latin grammar. We understand that Professor Thacher has been long and faithfully at work upon this revision, and the result of his labors seems to leave nothing to be desired.

Certainly no more competent hand could have been set to the work. The publishers, too, have given us another specimen of what may be called almost, if not quite, absolute perfection in school-book literature, the general appearance of the book in type and binding being like that of Allen's Latin Grammar, issued by the same publishers. This volume contains a copious index, without which any book of reference is well nigh valueless. The grammar *per se* is so well known that it needs no recommendation or extended review from us.

NEW SYSTEM OF VENTILATION. By Henry A. Gouge. New York: D. Van Nostrand. The author's Atmospheric Ventilator creates a current by means of an argand burner. It has been applied to hotels, churches, public offices, school and dwelling-houses with the most satisfactory results. The book before us is mainly devoted to an account of what it has accomplished.

THE NATIONAL PRIMARY SCHOOL SLATES. Nos. 1 and 2. W. A. Wilde & Co., No. 1 Cornhill, Boston, have very neat slates for primary school use. No. 1 has patterns for drawing in straight and curved lines, and copies for printing. No. 2 gives exercises in script hand, and a very systematically arranged series of drawing lessons.

This firm do a large business in slates. They have a nice way of fixing a piece of rubber on each corner of the frame, so that a slate may even fall to the floor without exciting the nerves of the teacher. This adds but a trifle to the cost.

SPENCERIAN COPY BOOKS. Ivison, Phinney, Blakeman & Co., New York. Intermediate. This is a new book containing all the letters, small and capital, with a part of the page so ruled as to regulate their relative length. The copies present a good style of letter, and are handsomely engraved.